

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

1/41

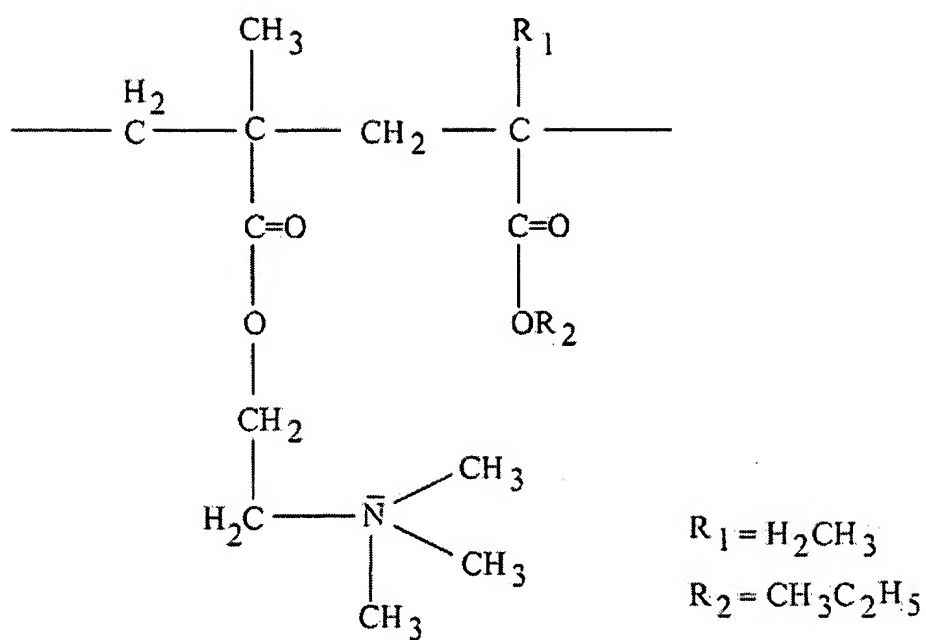


FIG. 1

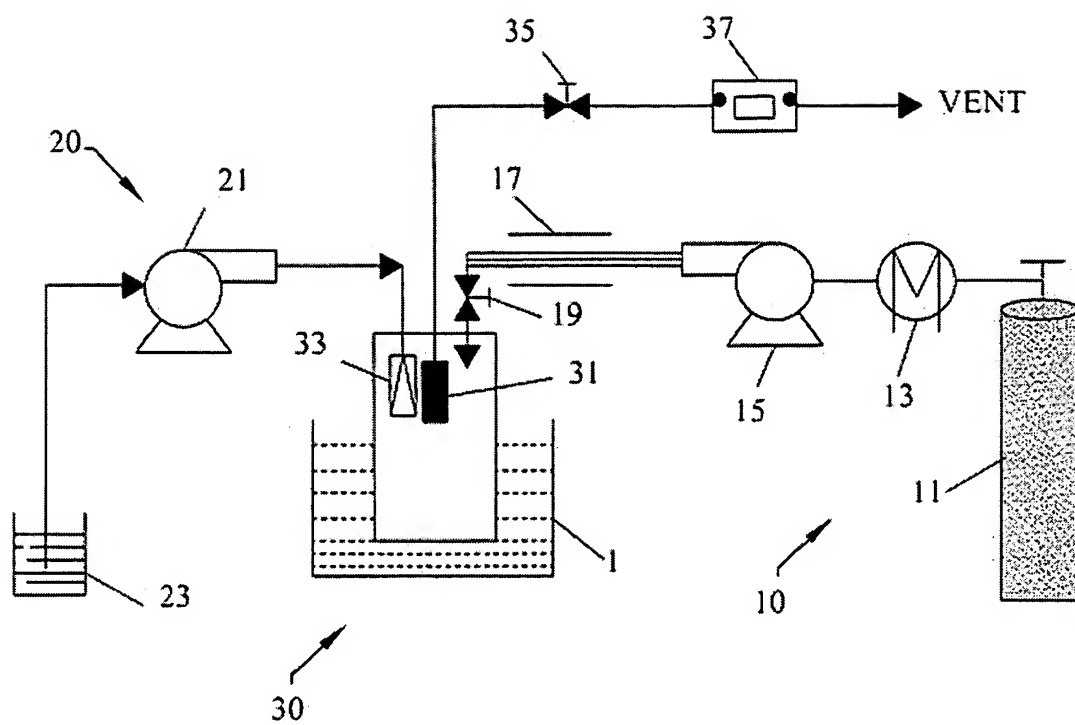


FIG. 2

3/41

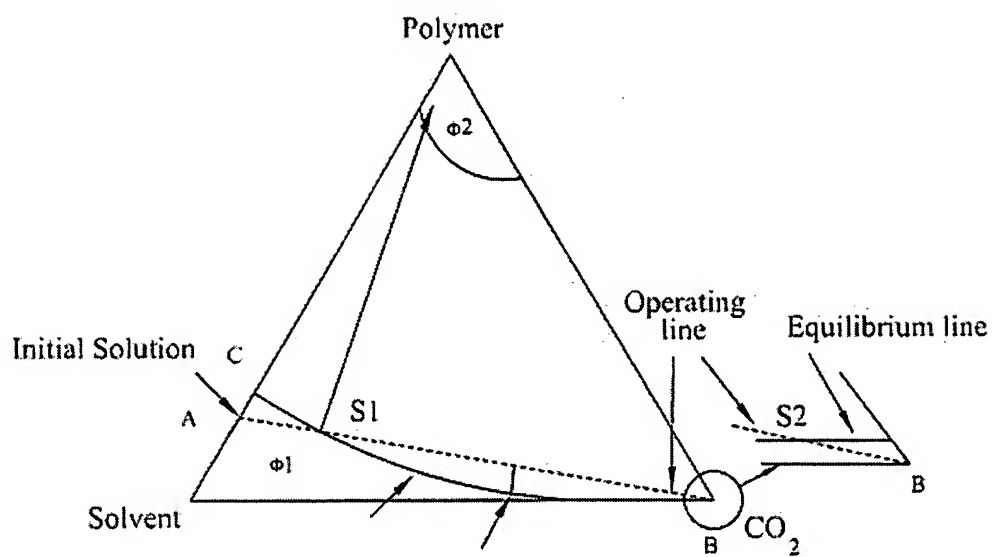


FIG. 3

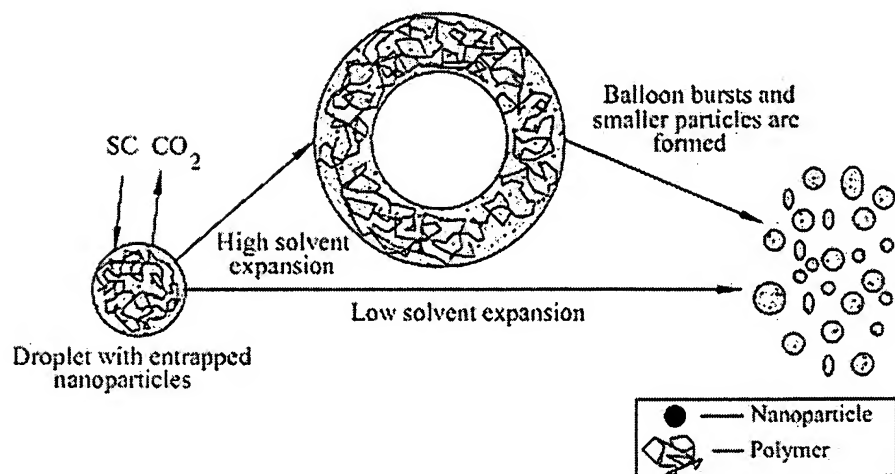


FIG. 4

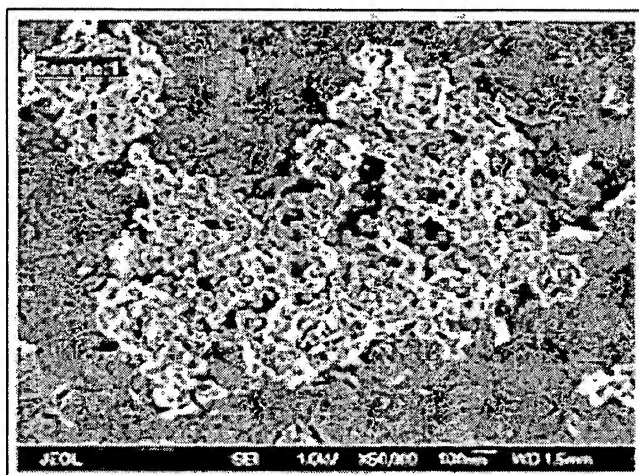


FIG. 5(a)

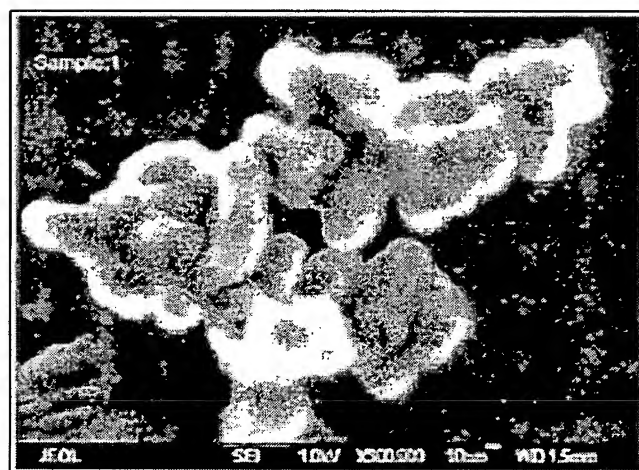


FIG. 5(b)

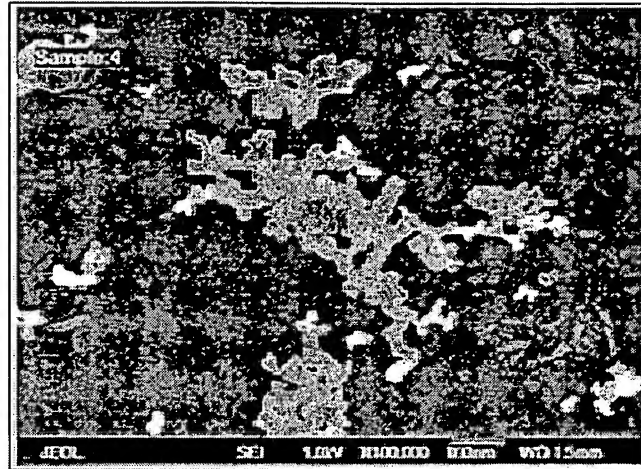


FIG. 6(a)

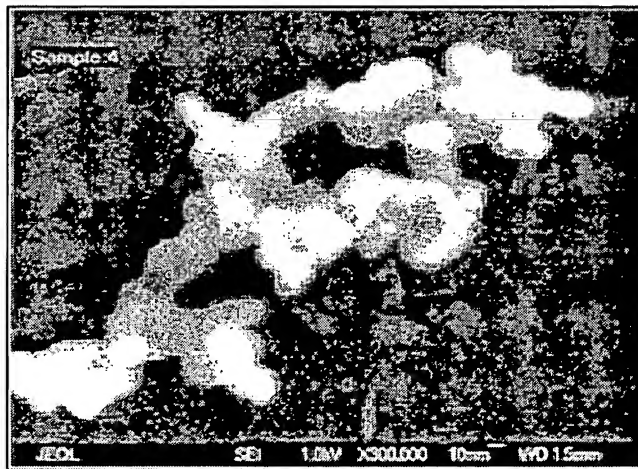


FIG. 6(b)

6/41

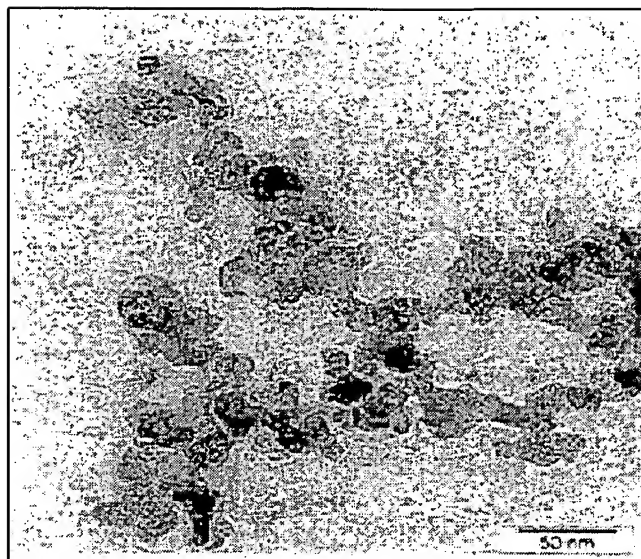


FIG. 7(a)

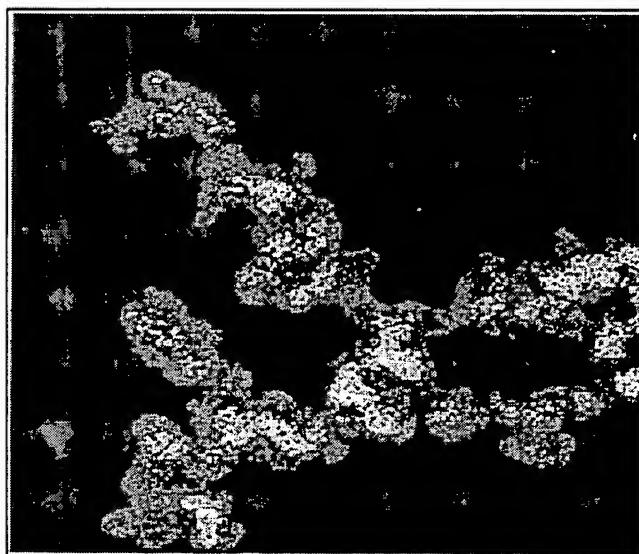


FIG. 7(b)

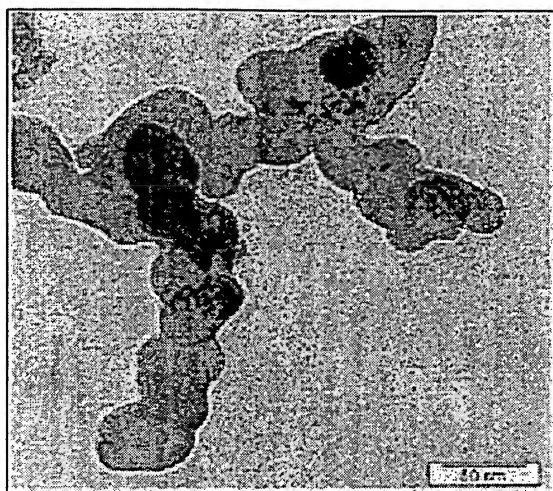


FIG. 8(a)

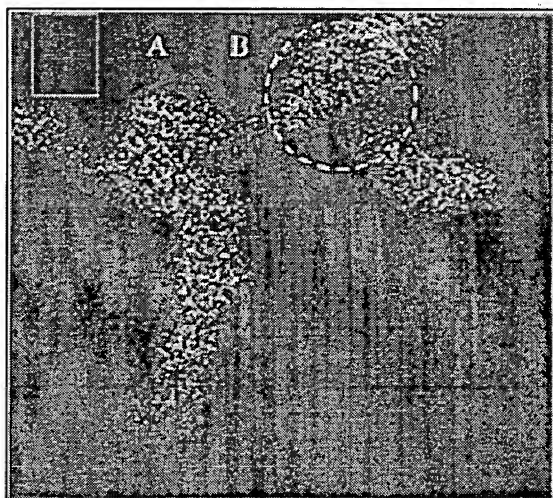


FIG. 8(b)

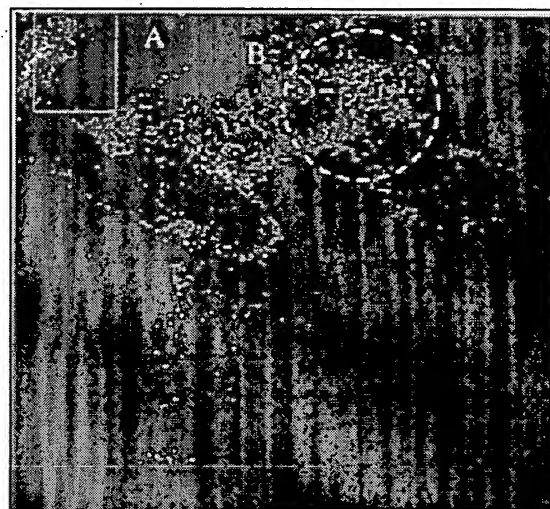


FIG. 8(c)

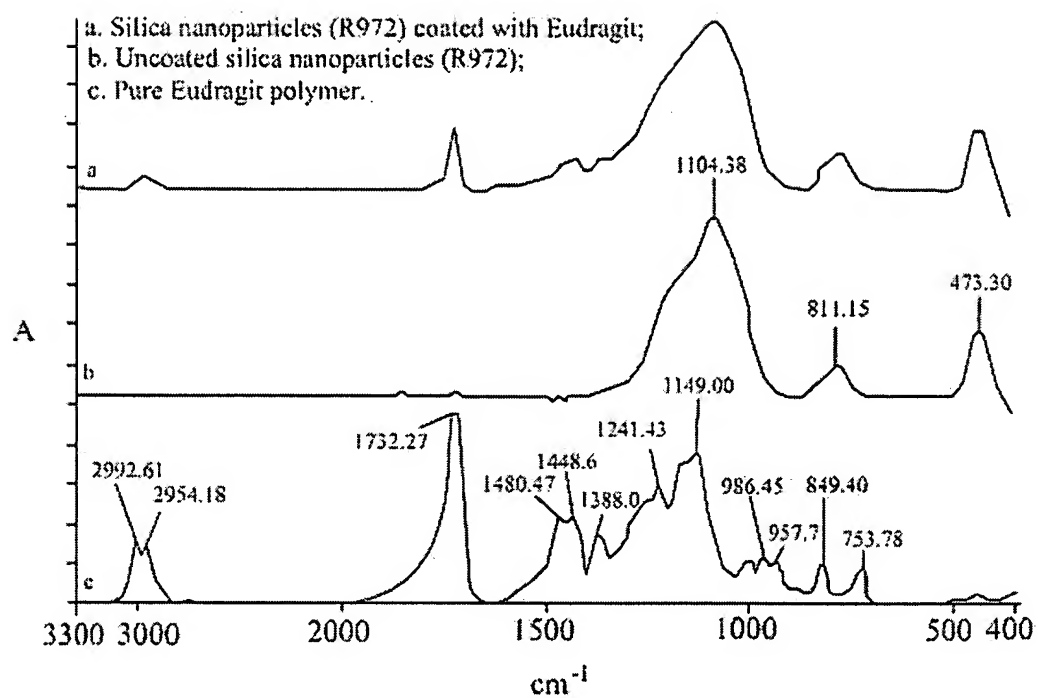


FIG. 9

9/41

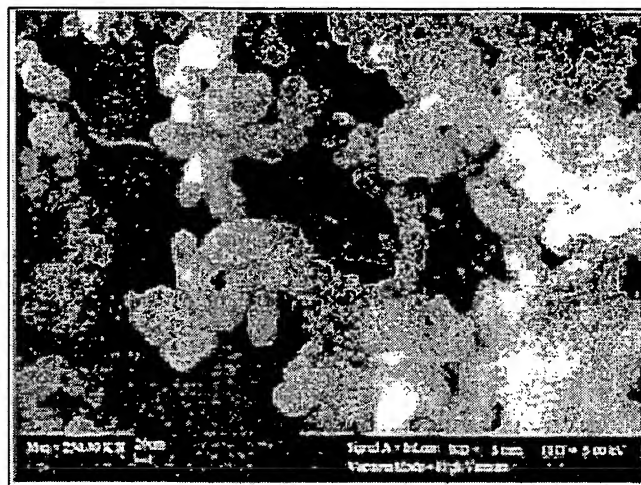


FIG. 10(a)

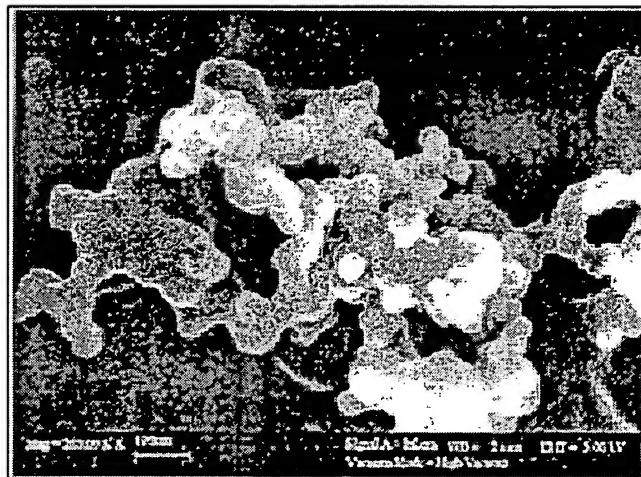


FIG. 10(b)

10/41

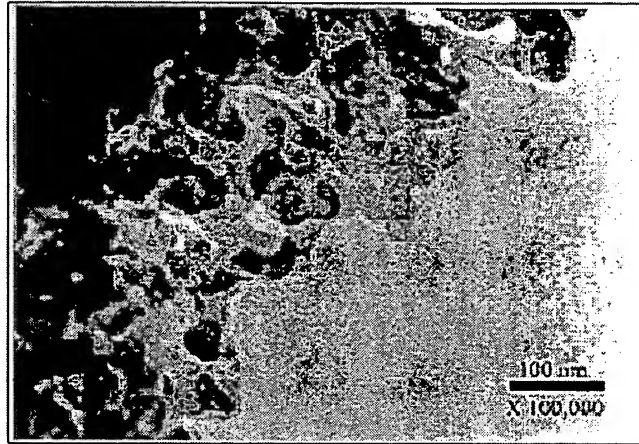


FIG. 11(a)

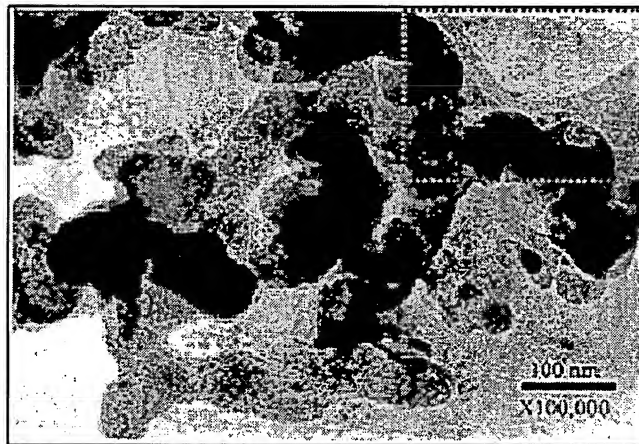


FIG. 11(b)

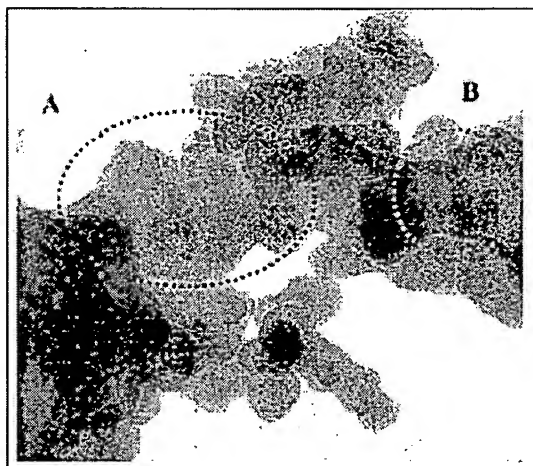


FIG. 12(a)

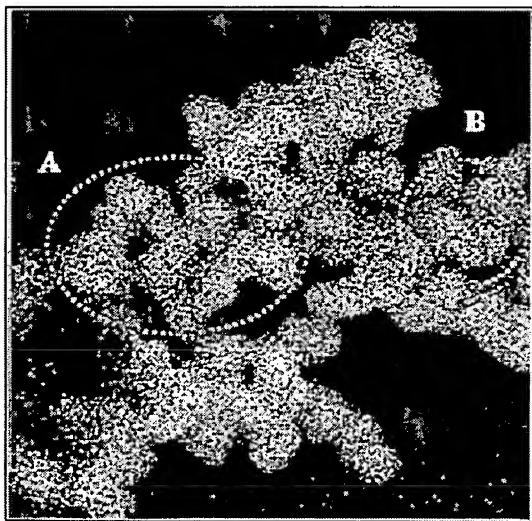


FIG. 12(b)

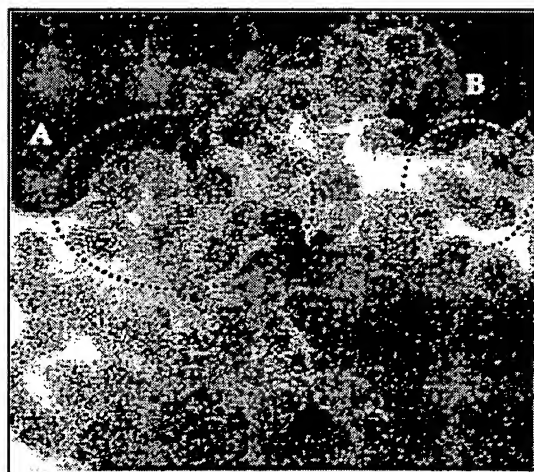


FIG. 12(c)

12/41

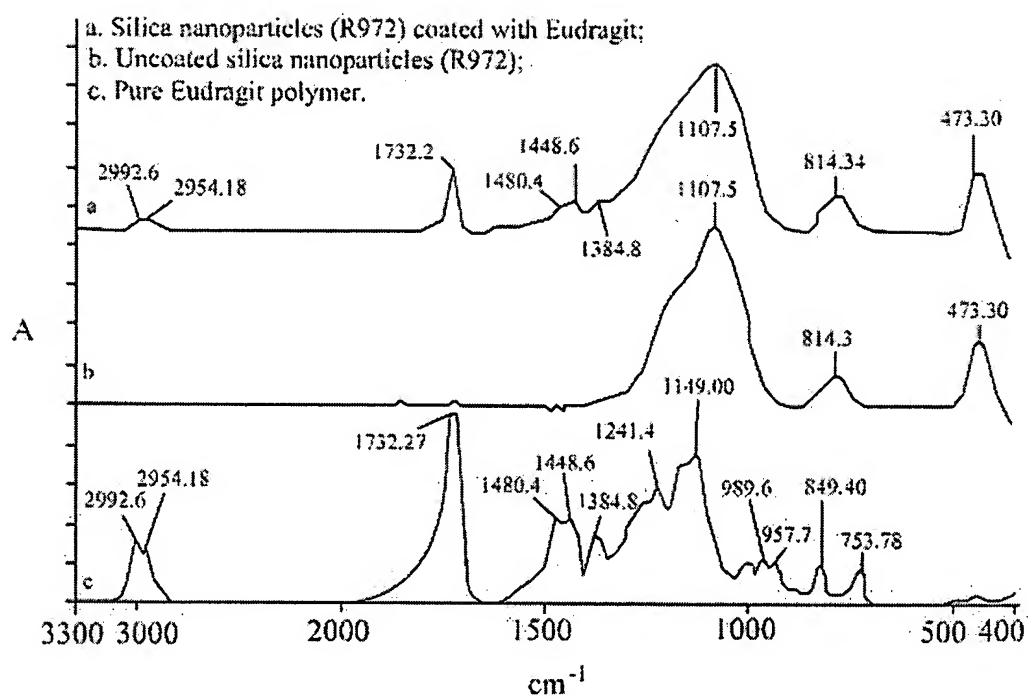


FIG. 13

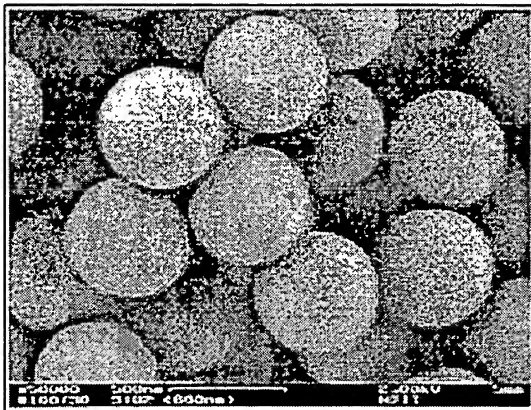


FIG. 14(a)

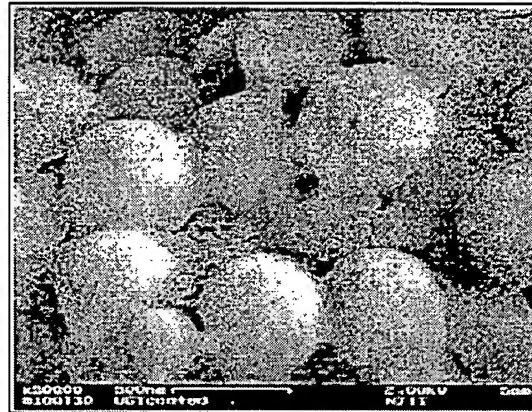


FIG. 14(c)

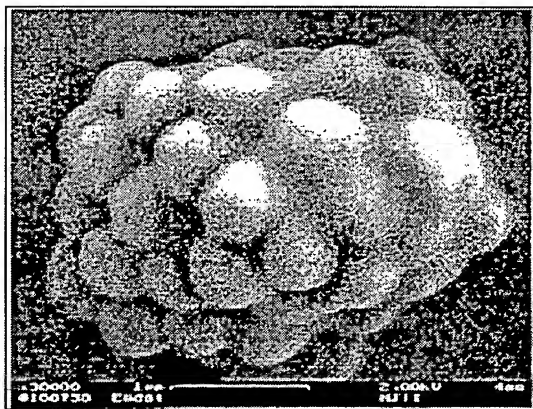


FIG. 14(b)

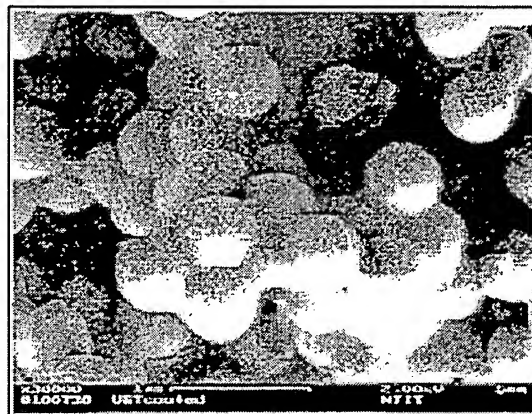


FIG. 14(d)

14/41

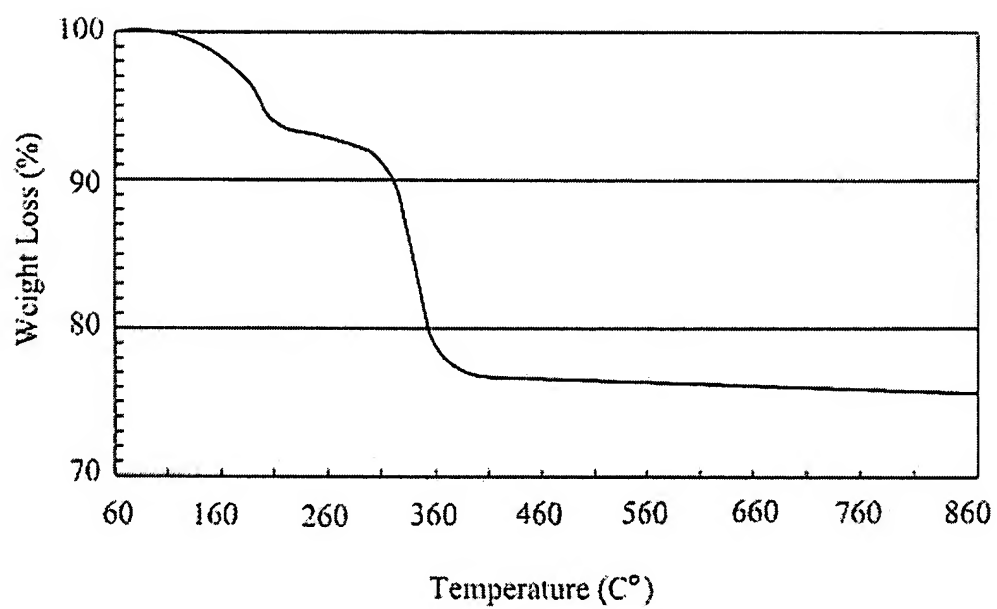


FIG. 15

15/41

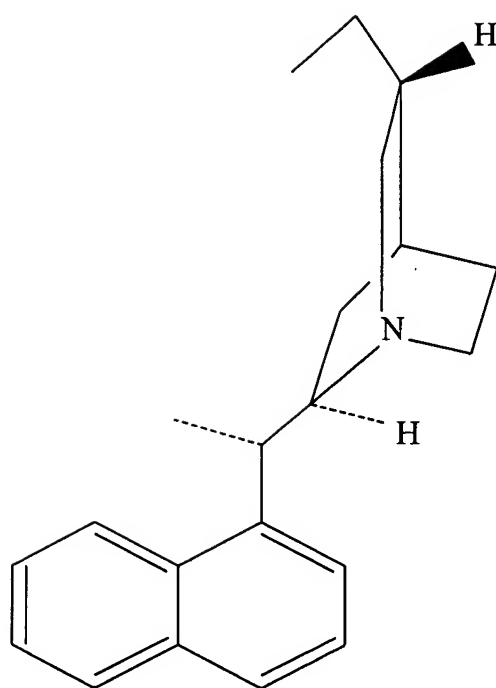


FIG. 16

16/41

**EXPERIMENTAL CONDITIONS IN SAS COATING
AND CO-PRECIPITATION PROCESS**

Parameters Experiments	Solvent	Polymer Conc. (g/ml)	Ratio of polymer to particles (g/g)
Coating of drug particles	DCM	1.0	1:4
			1:2
			1:1
Co-precipitation of drug and PLGA	Acetone	1.0	1:1
	Methanol and DCM	1.0	1:1

FIG. 17

17/41

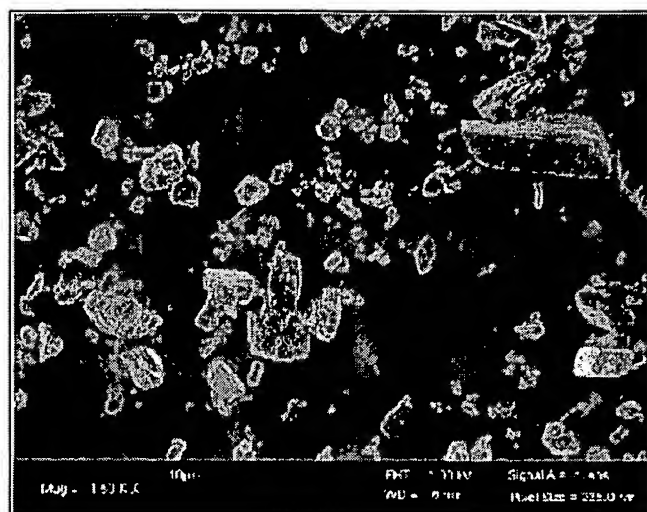


FIG. 18(a)

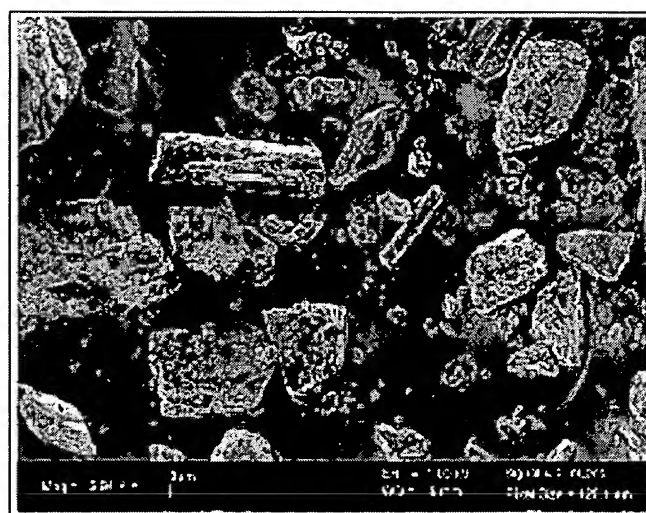


FIG. 18(b)

18/41



FIG. 19(a)

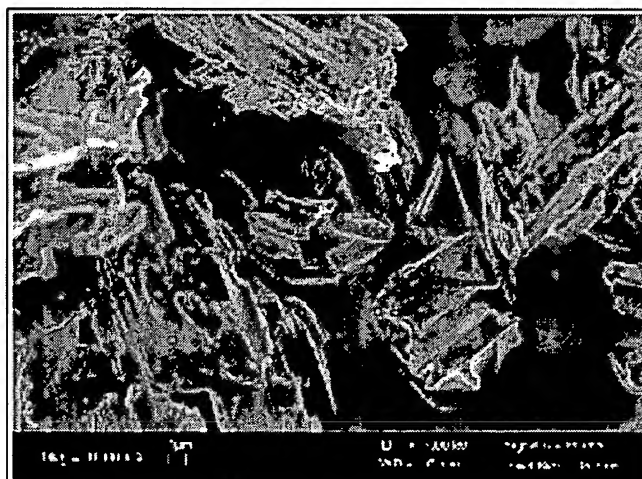


FIG. 19(b)

19/41

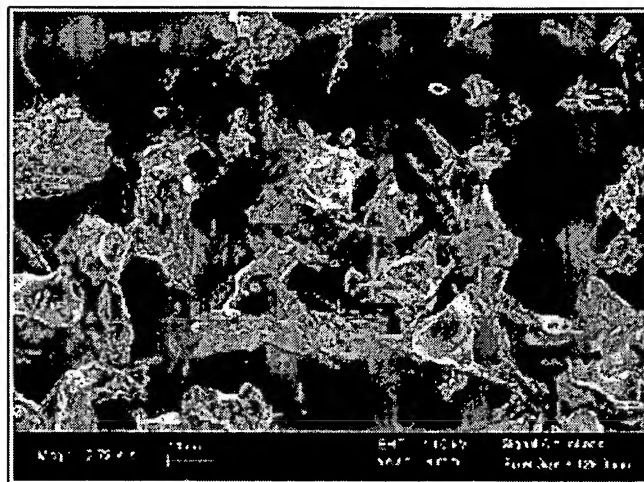


FIG. 20(a)

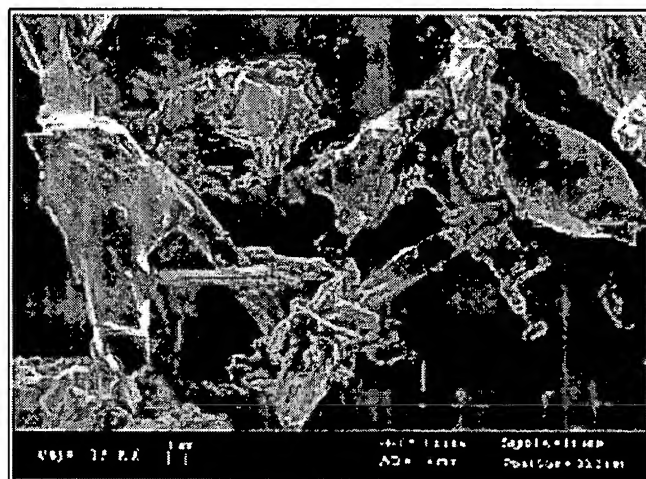


FIG. 20(b)

20/41

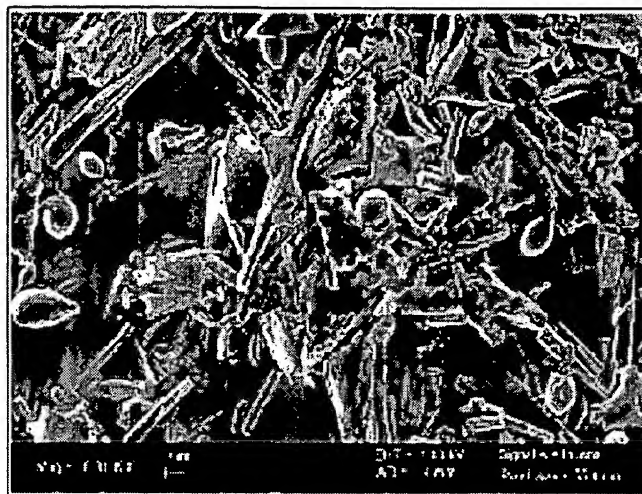


FIG. 21(a)



FIG. 21(b)

21/41

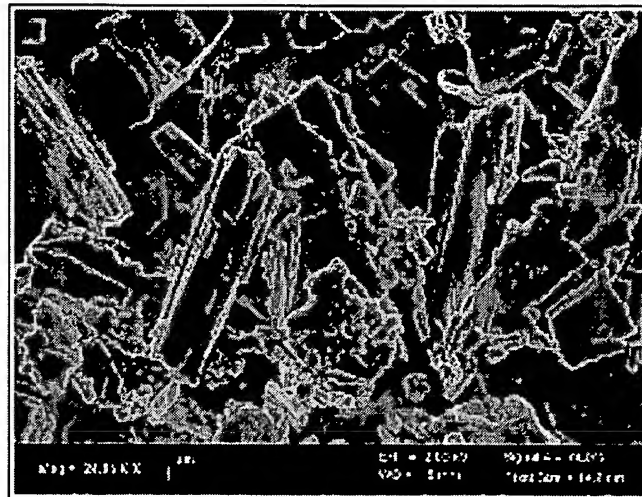


FIG. 22(a)

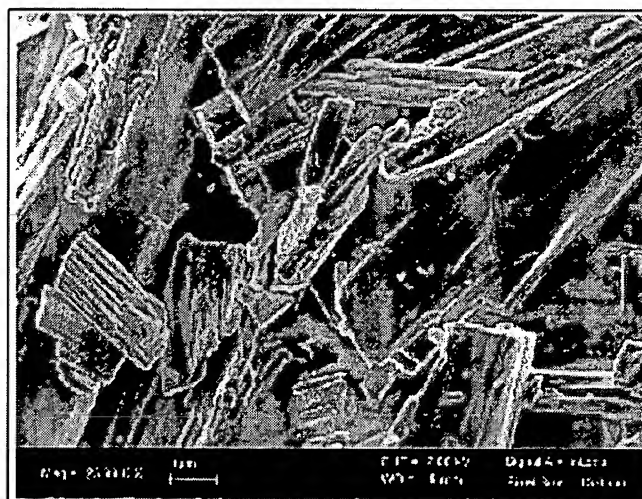


FIG. 22(b)

22/41

**ENCAPSULATION EFFICIENCY (EE) OF COATED
DRUG PARTICLES AND CO-PRECIPITATED PARTICLES.**

Ratio of PLGA to HC	SAS Process	Encapsulation Efficiency (EE) (%)	Average (%)	SD
1:4	*Coating	0	0	0
1:2	Coating	8.4	6.7	± 1.4
		6.3		
		5.4		
1:1	Coating	21.5	22.6	± 2.3
		25.2		
		21.2		
1:1	*Co-precipitation from methanol and DCM	0	0	0
1:1	*Co-precipitation from acetone	0	0	0

* Analysis was performed in three replicates on each sample.

FIG. 23

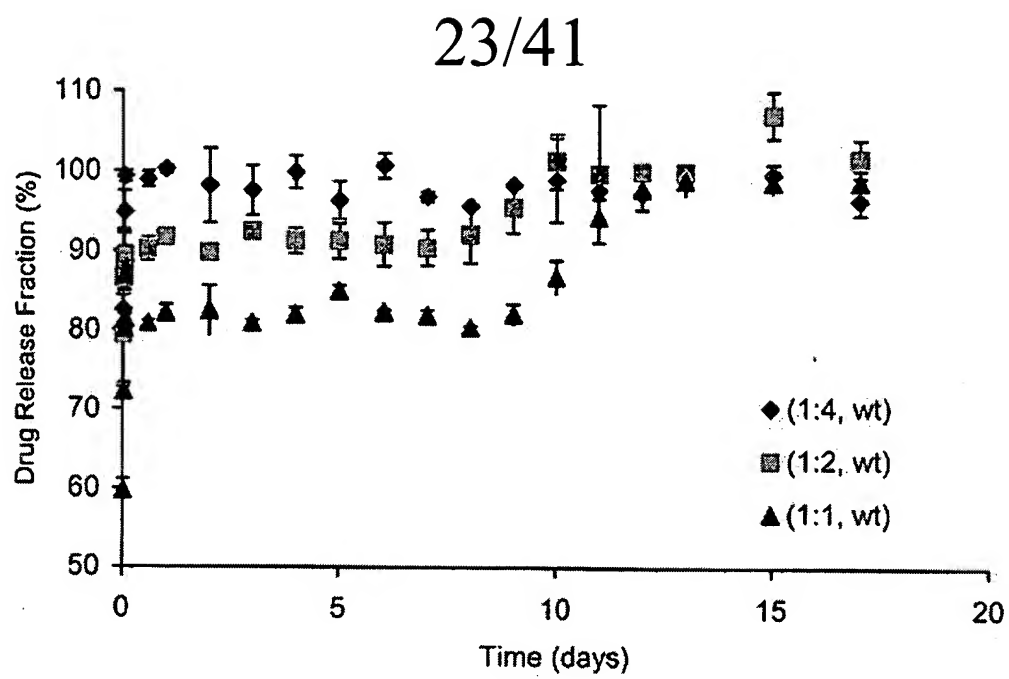


FIG. 24

24/41

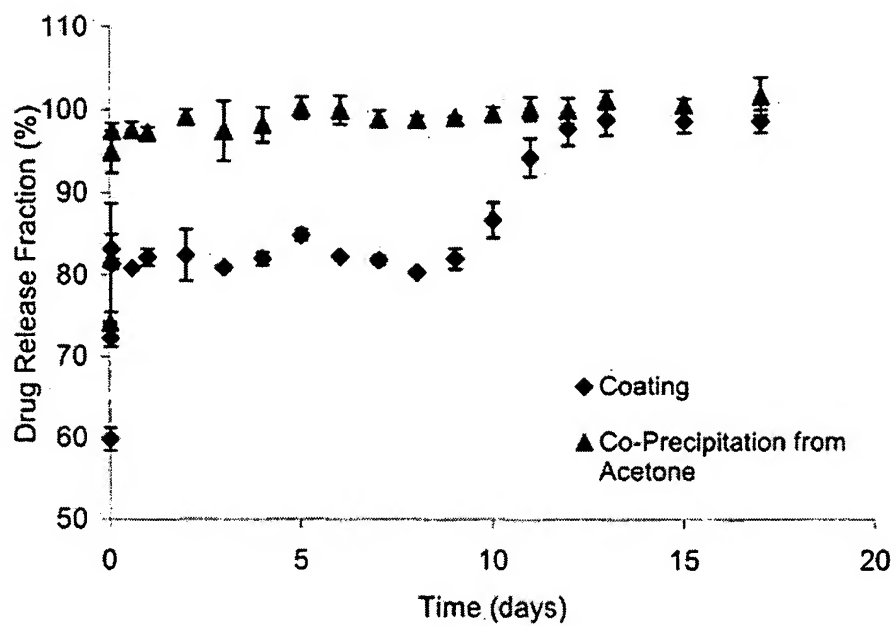
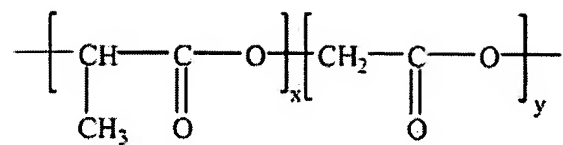


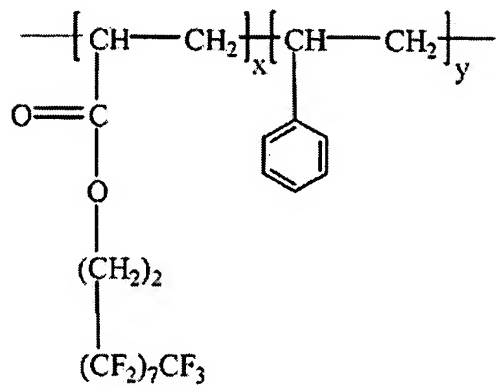
FIG. 25

25/41

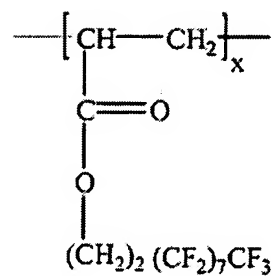
Poly lactide-co-glycolide (PLGA)



Poly fluoroacrylate-styrene (PFS)



Poly fluoroacrylate (PFA)



Perfluoropolyether (PFPE)

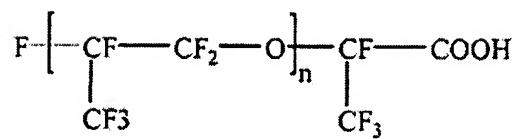


FIG. 26

26/41

Run No.	T (°C)	P (MPa)	PLGA Conc. (mg/ml)	PLGA Weight Fraction	Flow rate (ml/min)	Observation
1	33.0	8.96	10.0	25.0	0.8	Fairly Loose agglomerates
2	33.0	8.96	10.0	16.7	0.8	Very loose agglomerates
3	33.0	8.96	10.0	12.5	0.8	Very loose agglomerates
4	33.0	11.03	10.0	25.0	0.8	Heavily agglomerated (Sintering)
5	38.0	8.96	10.0	16.7	0.8	Very loose agglomerates
6	42.5	8.96	10.0	16.7	0.8	Fairly loose agglomerates (Some sintering)
7	33.0	8.96	4.0	16.7	0.8	No agglomerates observed
8	33.0	8.96	13.0	16.7	0.8	Loose agglomerates
9	33.0	8.96	10.0	16.7	1.8	Loose agglomerates
10	33.0	8.96	10.0	16.7	2.8	Loose agglomerates

FIG. 27

27/41

T (°C)	P (MPa)	Surfactant	Surfactant Conc. (wt.%) in SC CO ₂	Observation
32.0	9.65	PFS	0.018	Dense film coating on the surface of vessel and stirrer.
32.0	9.65	PFA	0.018	Dense film coating on the surface of vessel and stirrer.
32.0	9.65	PFPE	0.018	Dense film coating on the surface of vessel and stirrer.

FIG. 28

28/41

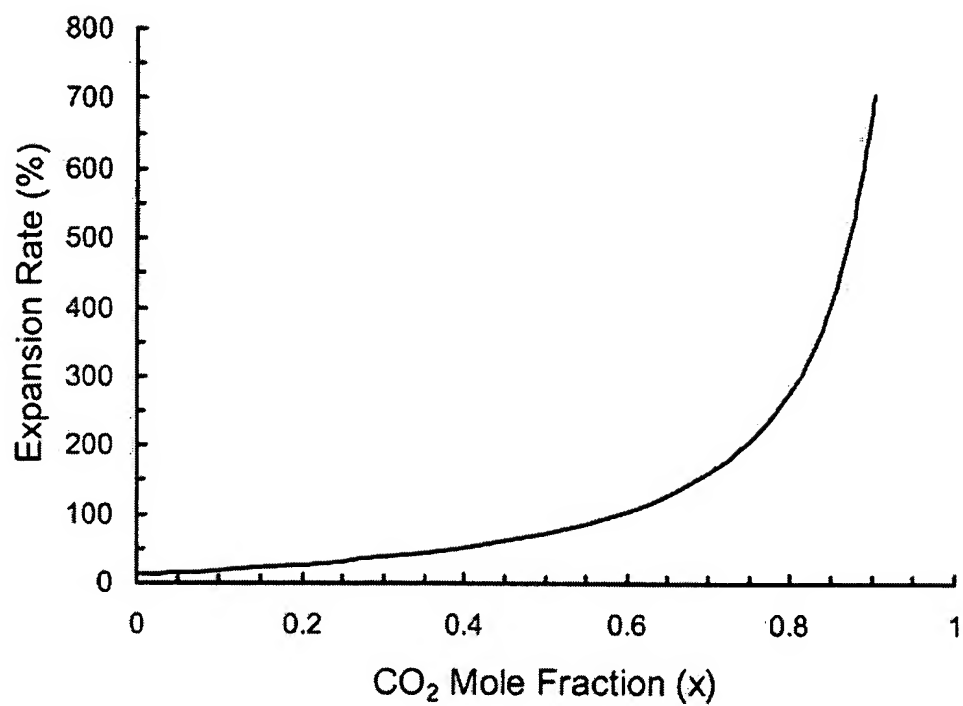


FIG. 29

29/41

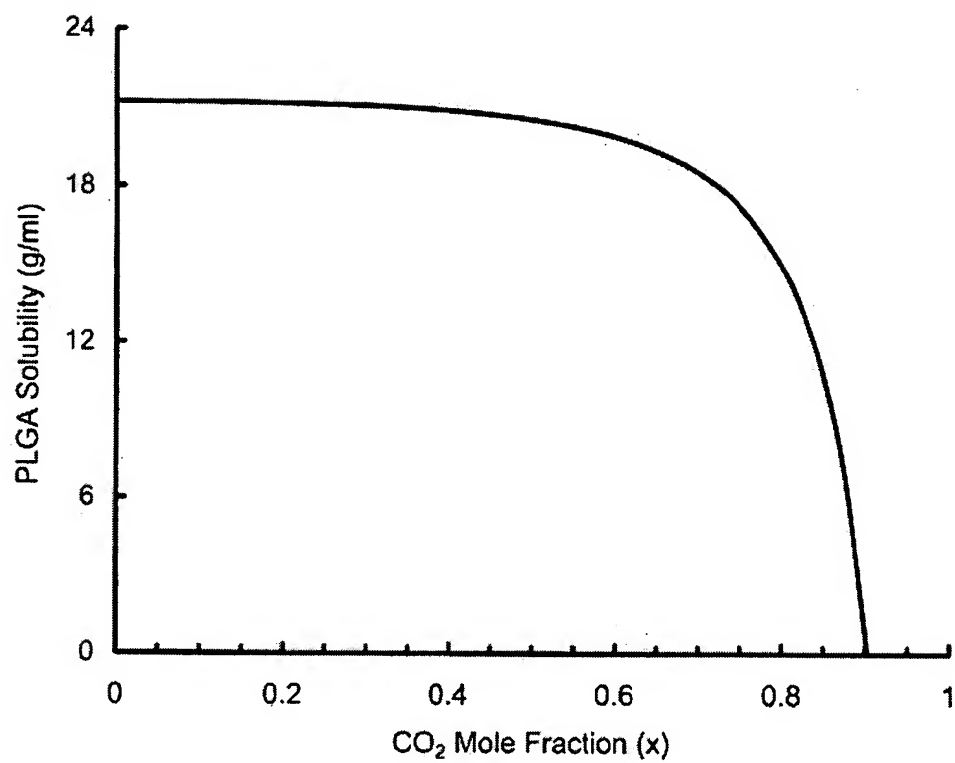


FIG. 30

30/41

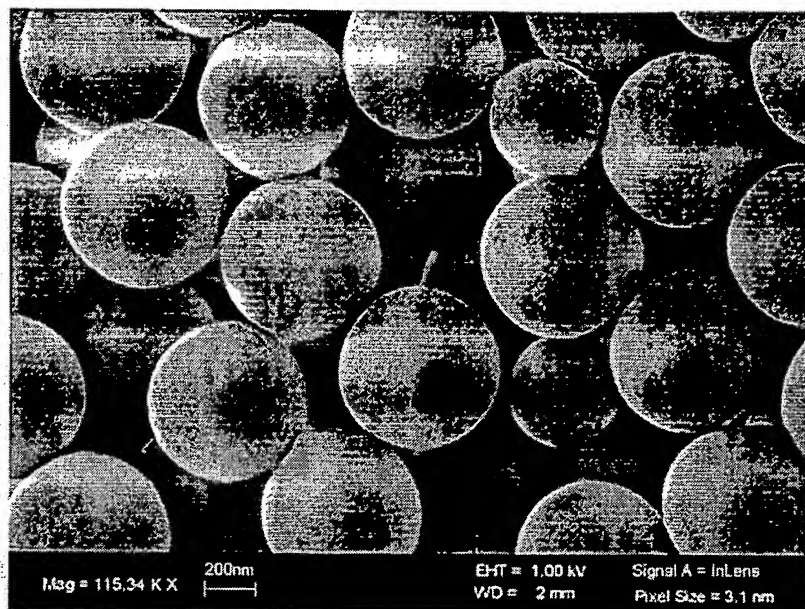


FIG. 31

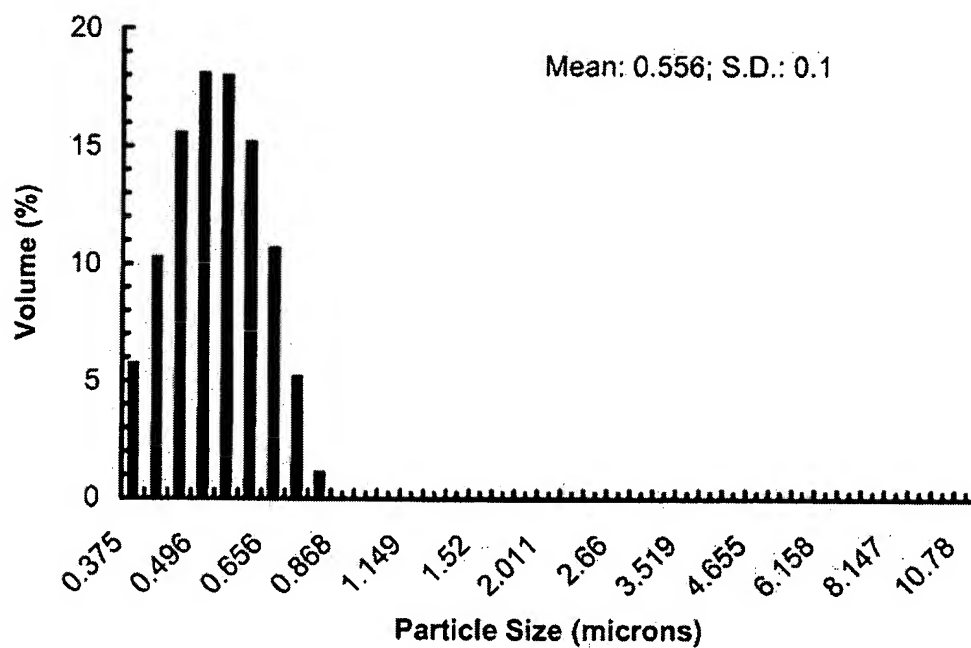


FIG. 32

31/41

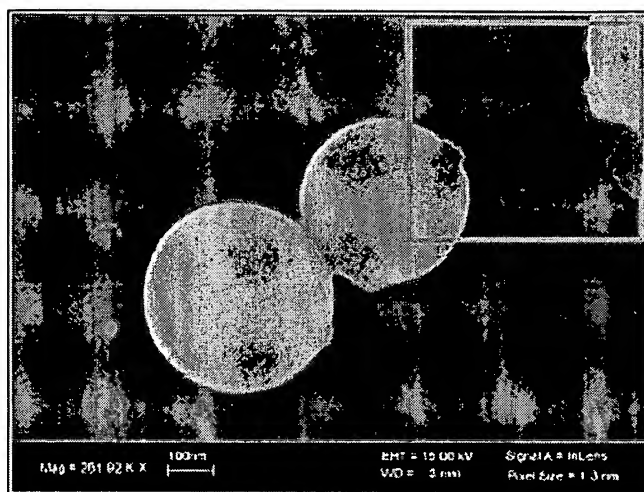


FIG. 33(a)

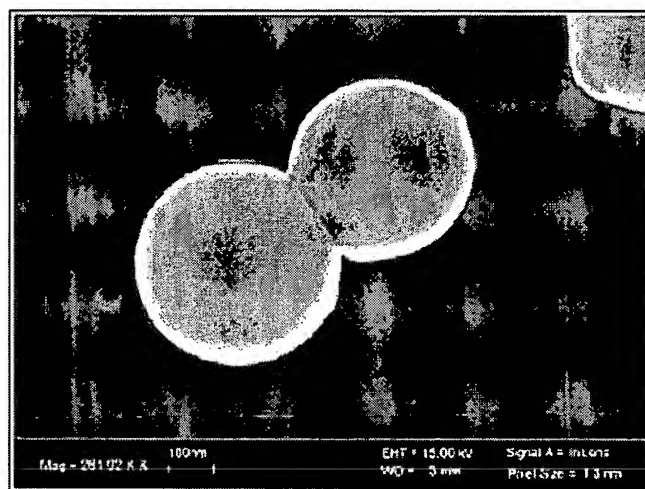


FIG. 33(b)

32/41

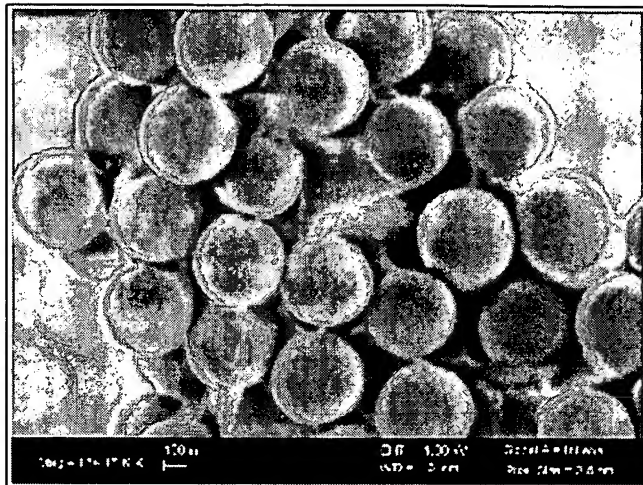


FIG. 34(a)

FIG. 34(b)

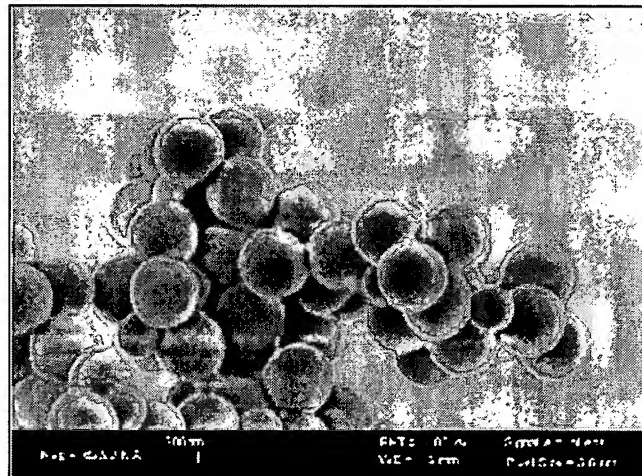
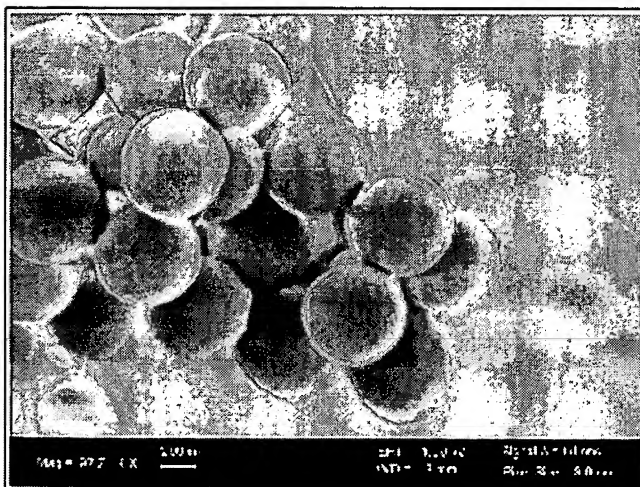


FIG. 34(c)



33/41

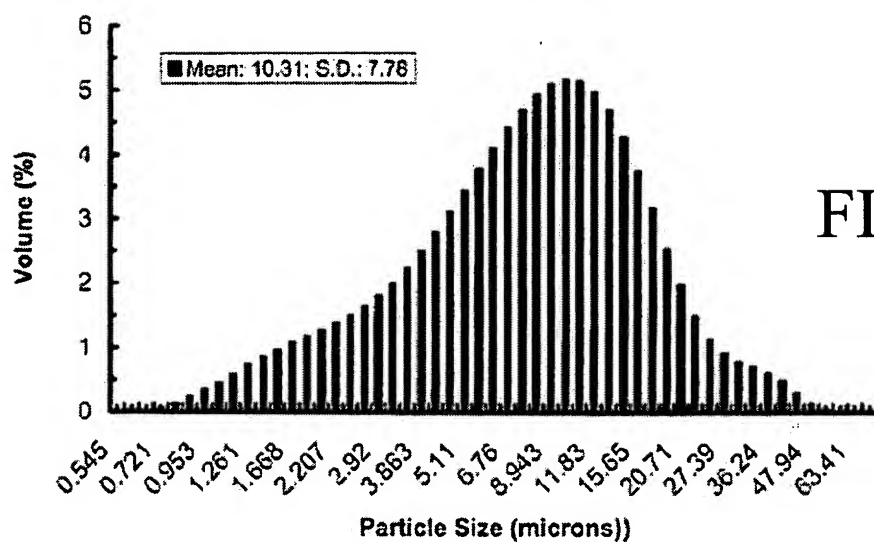


FIG. 35(a)

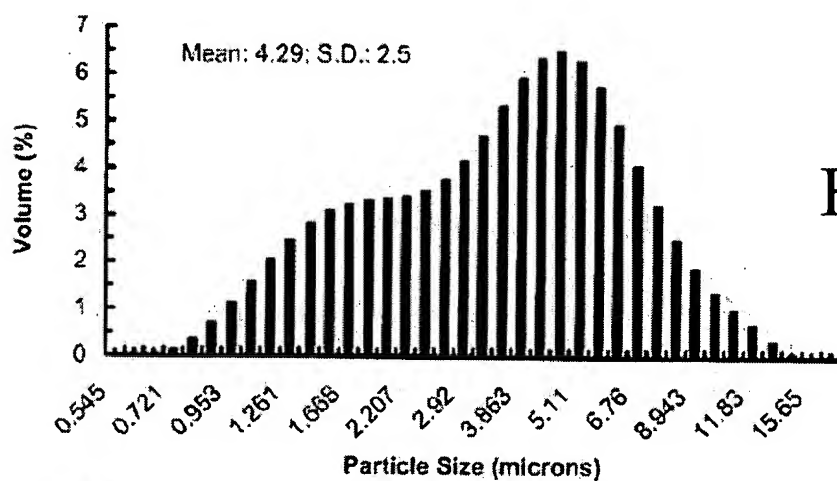


FIG. 35(b)

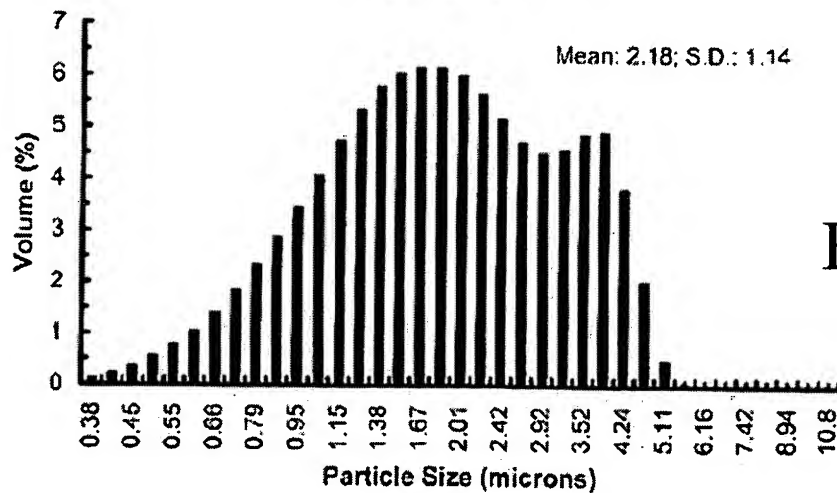


FIG. 35(c)

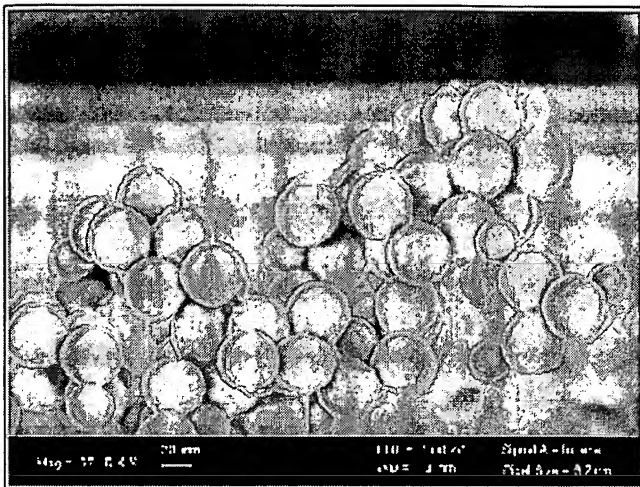


FIG. 36(a)

FIG. 36(b)

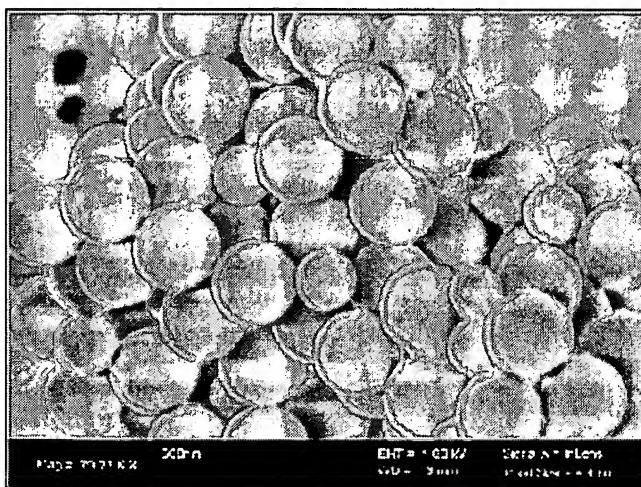
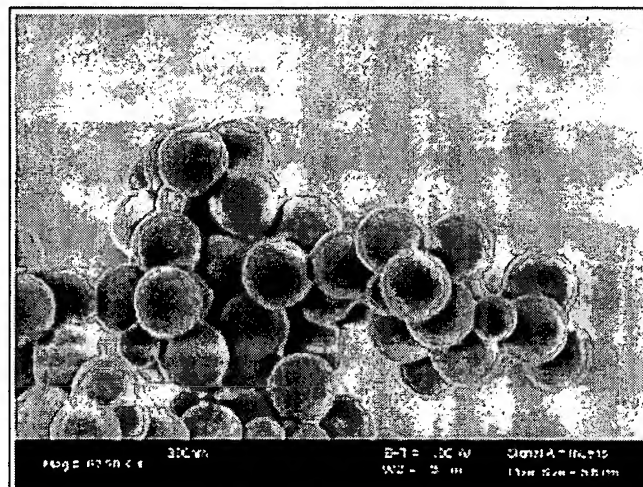


FIG. 36(c)

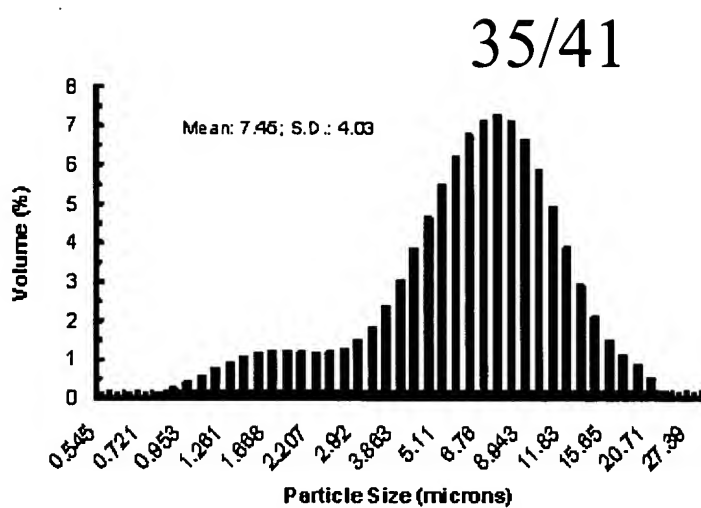


FIG. 37(a)

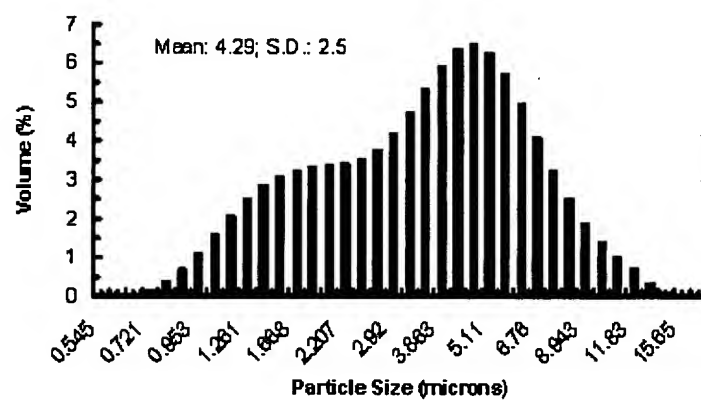


FIG. 37(b)

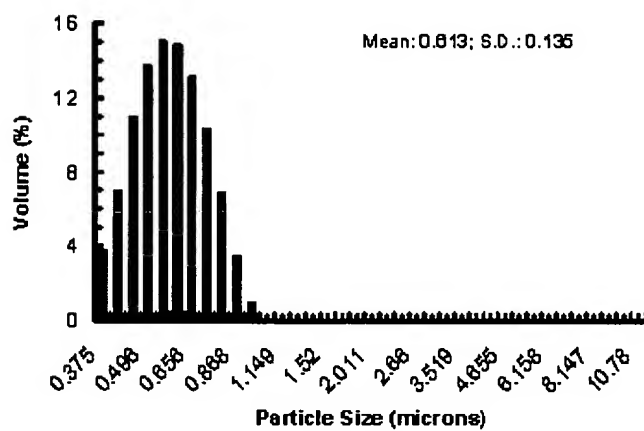


FIG. 37(c)

36/41

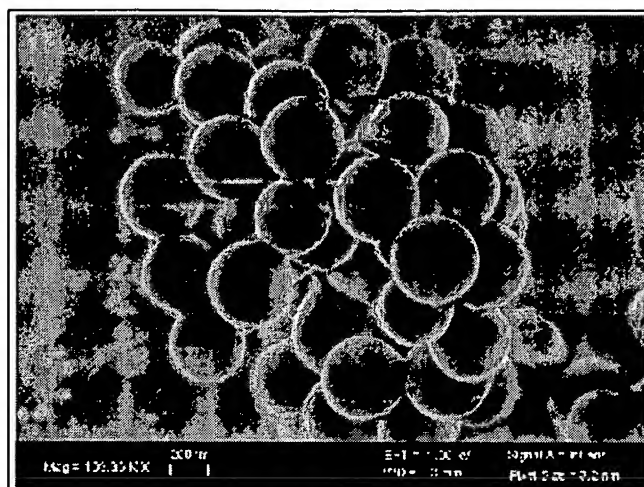


FIG. 38(a)

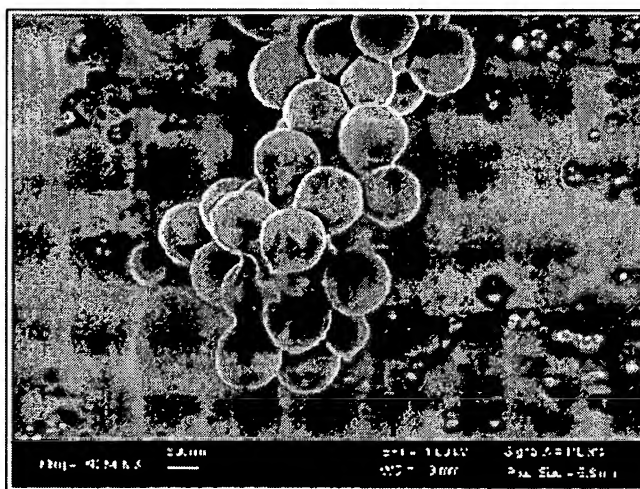


FIG. 38(b)

37/41

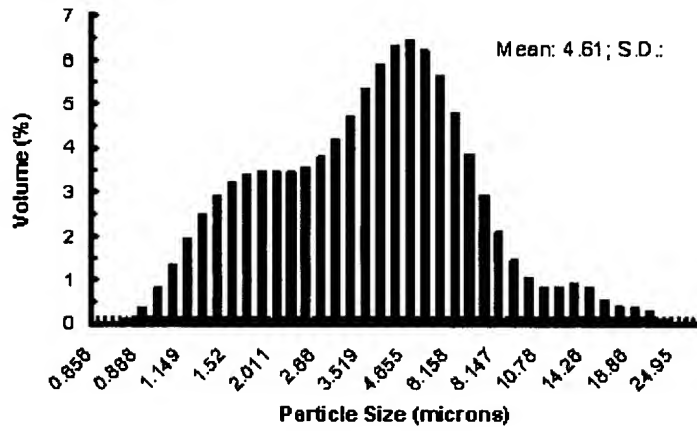


FIG. 39(a)

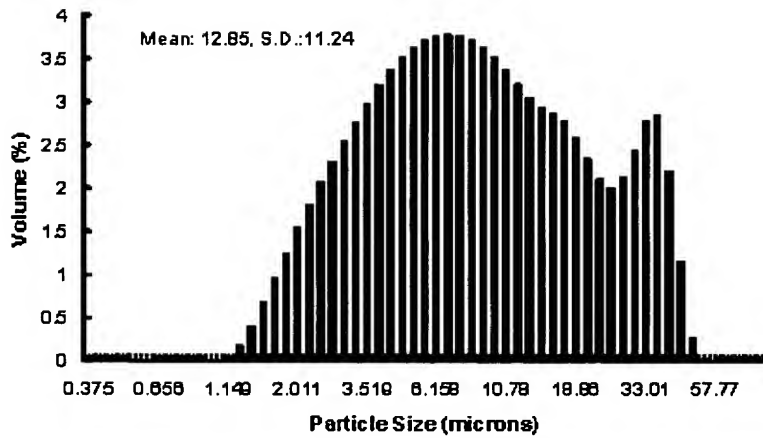


FIG. 39(b)

FIG. 40(b)

39/41

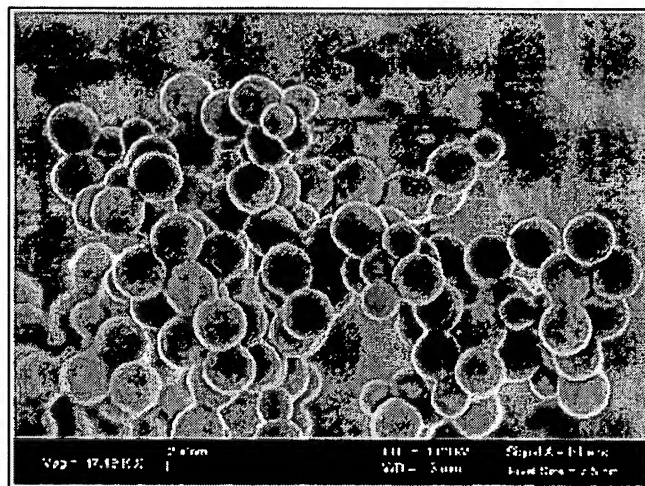


FIG. 41(a)

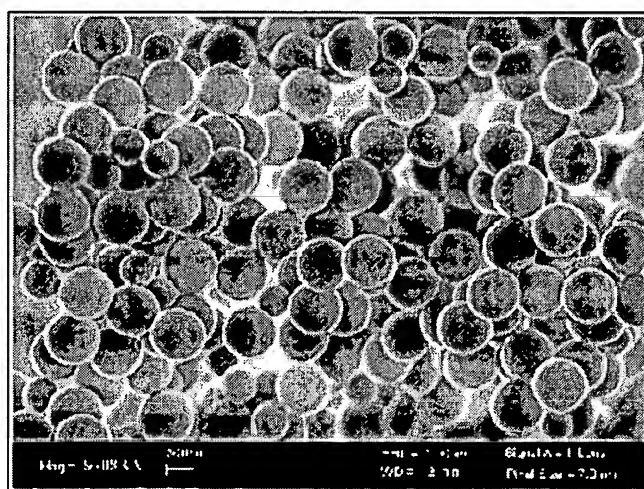


FIG. 41(b)

40/41

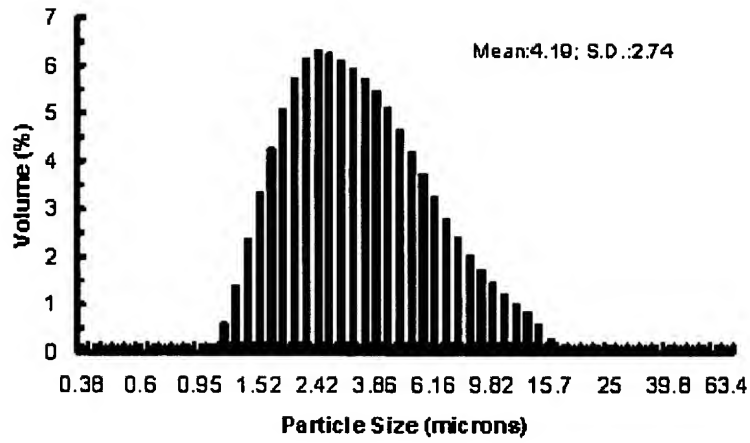


FIG. 42(a)

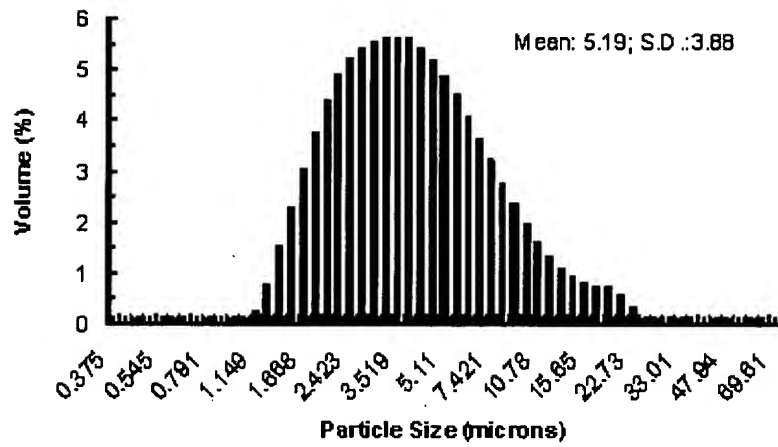


FIG. 42(b)

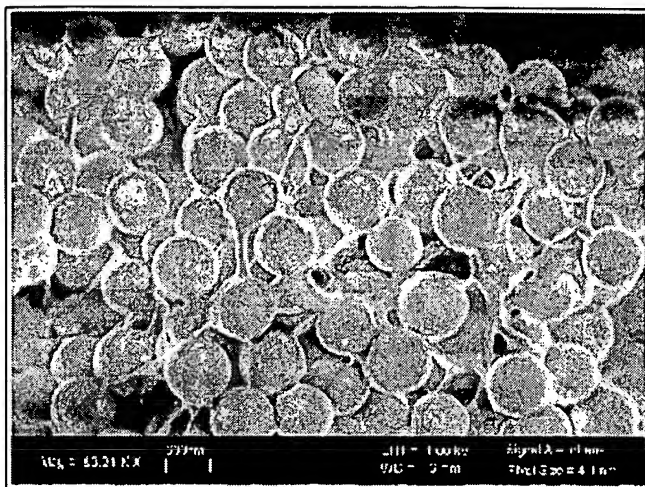


FIG. 43(a)

FIG. 43(b)

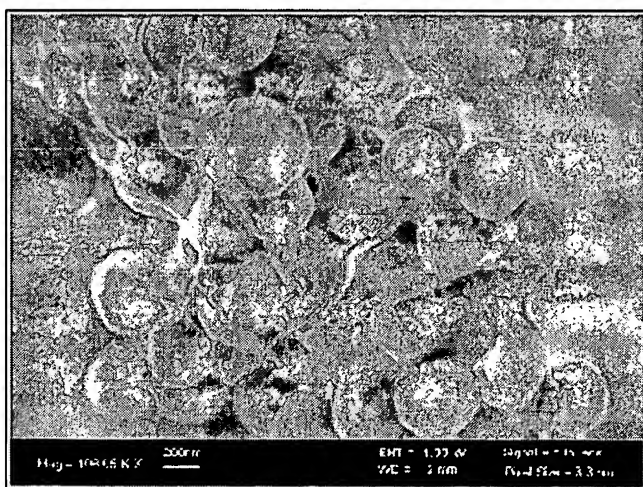
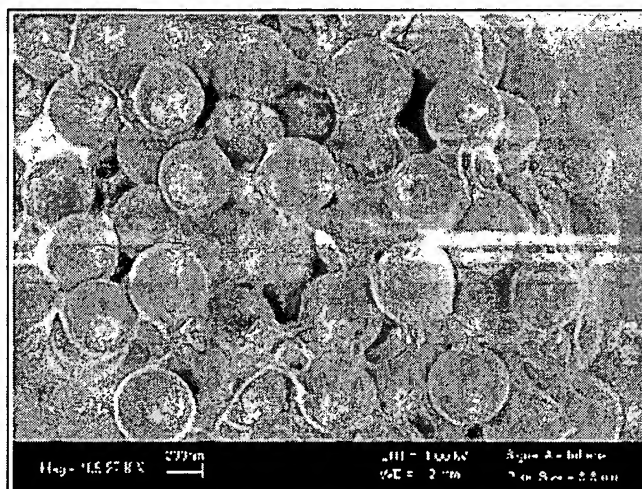


FIG. 43(c)